ST-A3L

UK Model
AEP Model

SONY
FM STEREO / FM-AM TUNER ST-A3L
POWER
FUNCTION
TUNING

FM STEREO / FM-AM TUNER

SPECIFICATIONS

GENERAL

Power Requirements:	110, 120, 220 or 240V ac adjustable 50/60 Hz
Power Consumption:	15W
Dimensions:	Approx. 410 (w) x 145 (h) x 325 (d) mm 16 (w) x 5¾ (h) x 12⅞ (d) inches including projecting parts and controls
Weight:	Approx. 5.6 kg, 12 lb 6 oz (net) Approx. 7.2 kg, 15 lb 14 oz (in shipping carton)

FM SECTION

Tuning Range:	87.5–108 MHz
Antenna Terminals:	300 Ω, balanced 75 Ω, unbalanced
Intermediate Frequency:	10.7 MHz
Sensitivity at 46 dB Quieting: (40 kHz deviation)	3.6 μV (MONO), new IHF 16.4 dBf 43 μV (STEREO), new IHF 37.9 dBf
Usable Sensitivity:	IHF 1.9 μV, new IHF 10.8 dBf 1.4 μV, S/N = 26 dB (40 kHz deviation)
S/N Ratio: (40 kHz deviation)	65 dB (MONO) 60 dB (STEREO)
Harmonic Distortion: (40 kHz deviation)	at 100 Hz 0.2% (MONO) 0.3% (STEREO) at 1 kHz 0.2% (MONO) 0.3% (STEREO) at 10 kHz 0.3% (MONO) 0.6% (STEREO)
IM Distortion:	0.2% (MONO) 0.3% (STEREO)

— Continued on page 2 —

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SONY®

SERVICE MANUAL

Separation:	35 dB at 100 Hz 42 dB at 1 kHz 32 dB at 10 kHz
Frequency Response:	30–12,500 Hz ± 1 dB
Alternate Channel Selectivity:	50 dB (300 kHz) 75 dB (400 kHz)
Capture Ratio:	1.0 dB
AM Suppression Ratio:	54 dB
Image Response Ratio:	45 dB
IF Response Ratio:	95 dB
Spurious Response Ratio:	75 dB
RF Intermodulation:	60 dB
Sub-carrier Product Ratio:	50 dB
Muting Threshold:	Approx. 5 µV
Output Level:	750 mV, 3 kΩ (75 kHz deviation)

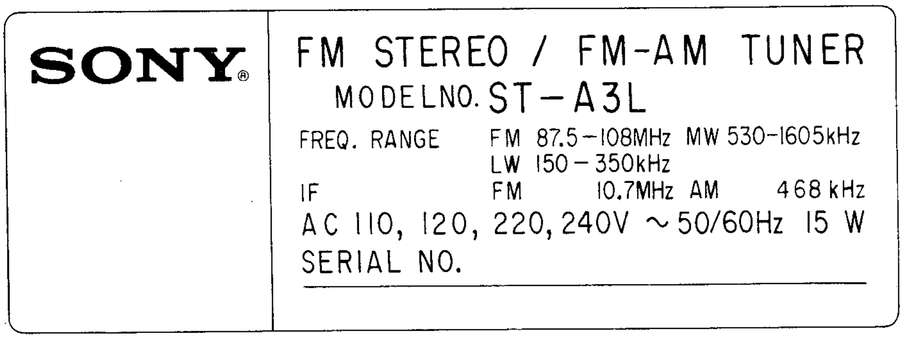
AM SECTION

	MW	LW
Tuning Range	530 kHz–1,605 kHz	150 kHz–350 kHz
Antenna	Built-in ferrite rod antenna External antenna terminal	
Intermediate Frequency	468 kHz	
Usable Sensitvity		
built-in antenna	250 µV/m (1,000 kHz)	450 µV/m (250 kHz)
external antenna	100 µV/m (1,000 kHz)	250 µV/m (250 kHz)
S/N Ratio	50 dB at 50 mV/m	
Harmonic Distortion	0.5% at 50 mV/m, 400 Hz	
Selectivity	35 dB (10 kHz)	35 dB (10 kHz)
Image Response Ratio	35 dB (1,000 kHz)	75 dB (250 kHz)

MODEL IDENTIFICATION

– Specification Label –

UK model



SONY®

FM STEREO / FM-AM TUNER

MODEL NO. ST-A3L

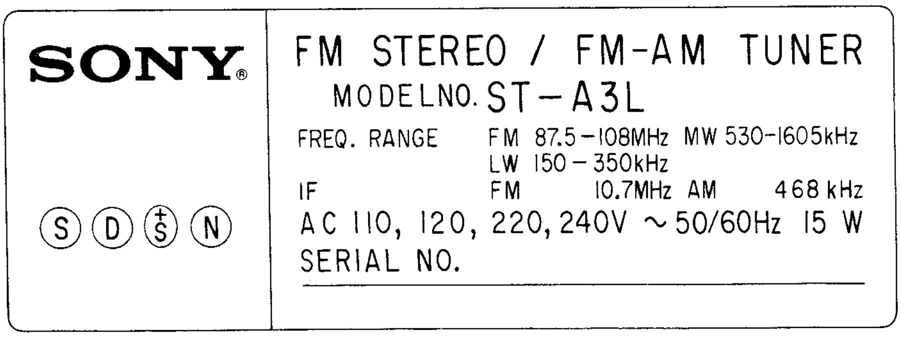
FREQ. RANGE FM 87.5–108MHz MW 530-1605kHz
LW 150–350kHz

IF FM 10.7MHz AM 468 kHz

AC 110, 120, 220, 240V ~50/60Hz 15 W

SERIAL NO.

AEP model



SONY®

FM STEREO / FM-AM TUNER

MODEL NO. ST-A3L

FREQ. RANGE FM 87.5–108MHz MW 530-1605kHz
LW 150–350kHz

IF FM 10.7MHz AM 468 kHz

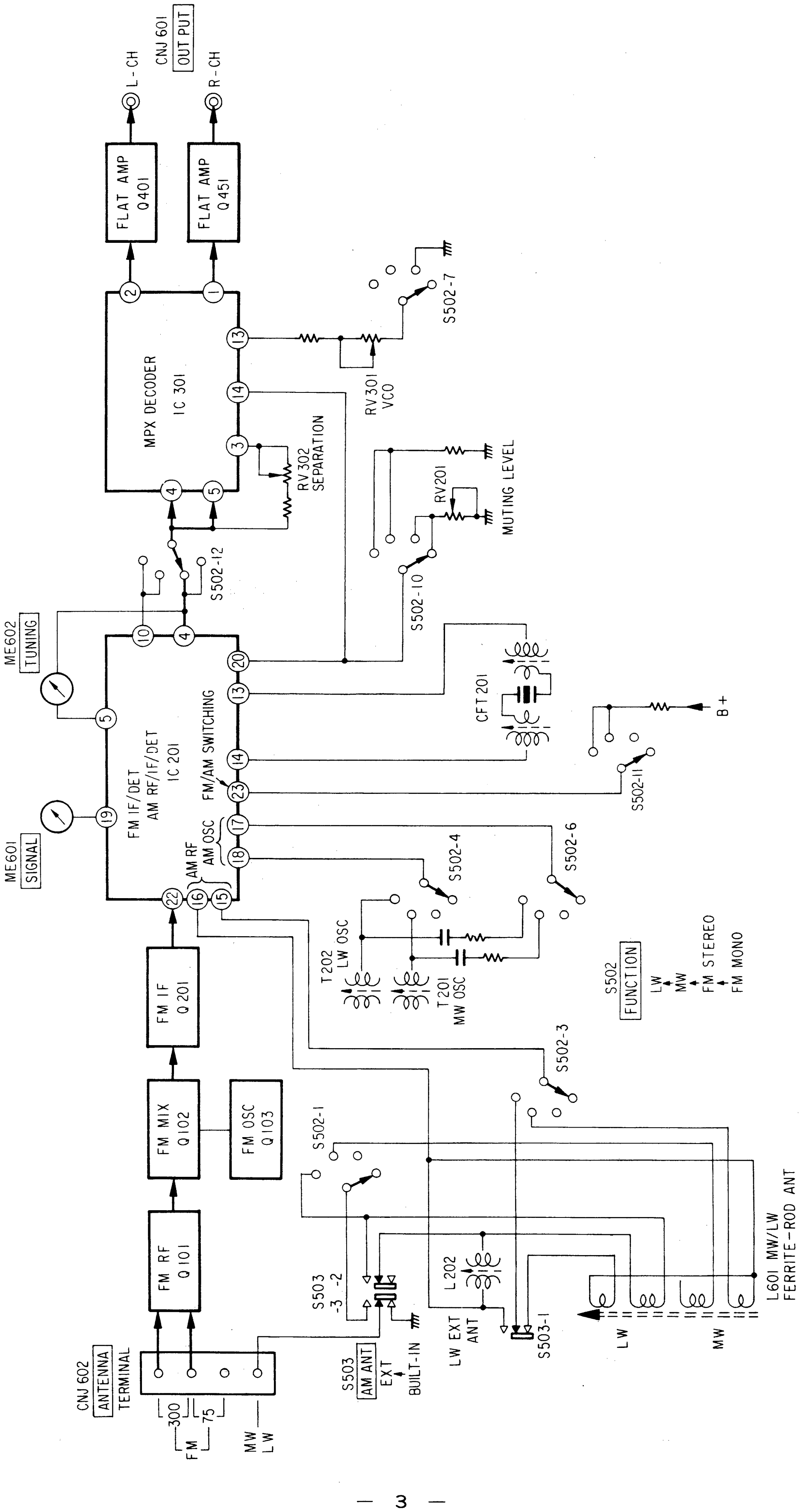
AC 110, 120, 220, 240V ~50/60Hz 15 W

SERIAL NO.

Ⓢ Ⓓ Ⓢ Ⓝ

SECTION 1
OUTLINE

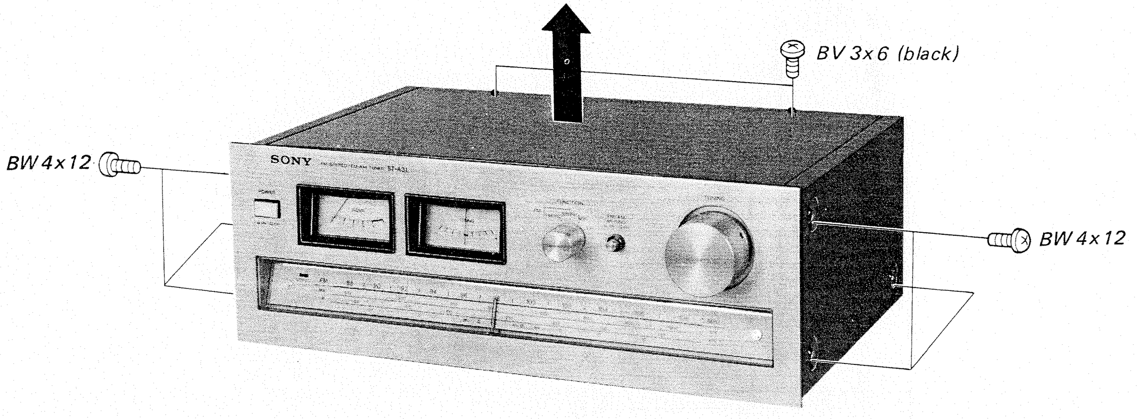
1-1. BLOCK DIAGRAM


CNJ 601
OUT PUT
L-CH
R-CH
FLAT AMP
Q401
FLAT AMP
Q451
MPX DECODER
IC 301
RV301
VCO
S502-7
RV302
SEPARATION
RV201
MUTING LEVEL
S502-12
S502-10
ME602
TUNING
ME601
SIGNAL
FM IF/DET
AM RF/IF/DET
IC 201
FM/AM SWITCHING
AM OSC
AM RF
CFT 201
B+
S502-11
S502-4
S502-6
T202
LW OSC
T201
MW OSC
S502
FUNCTION
LW
MW
FM STEREO
FM MONO
FM IF
Q 201
FM MIX
Q 102
FM OSC
Q 103
FM RF
Q 101
S502-3
S502-1
S503
-3 -2
L202
LW EXT
ANT
S503-1
LW
MW
L601 MW/LW
FERRITE-ROD ANT
S503
AM ANT
EXT
BUILT-IN
CNJ 602
ANTENNA
TERMINAL
300
75
FM
MW
LW
1
2
3
4
5
10
13
14
15
16
17
18
19
20
22
23

SECTION 2
DISASSEMBLY

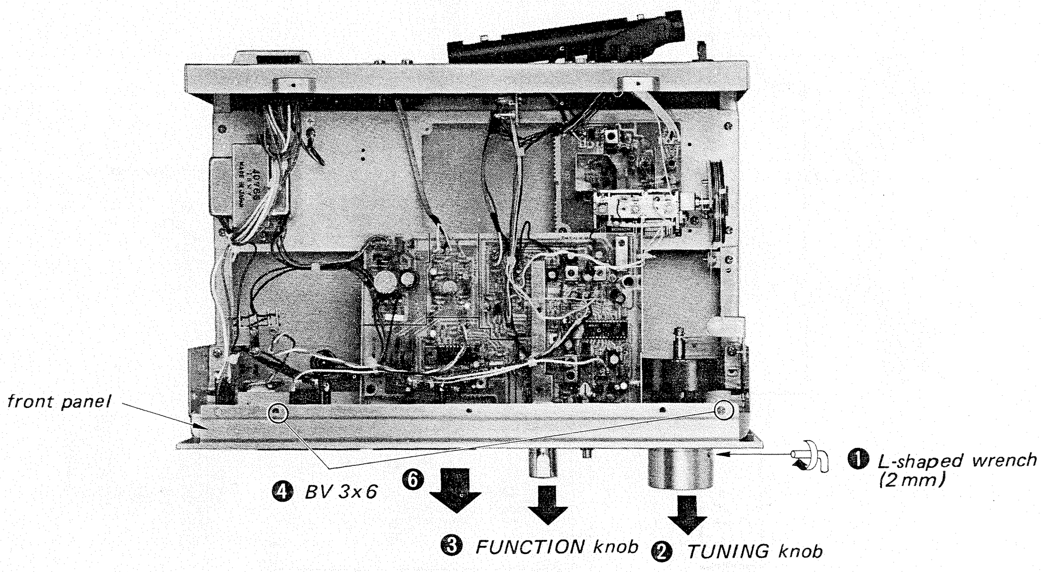
2-1. REMOVAL

CASE REMOVAL

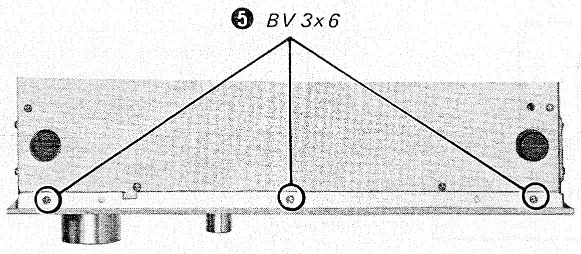

BV3x6 (black)
BW4x12
BW4x12

FRONT PANEL REMOVAL

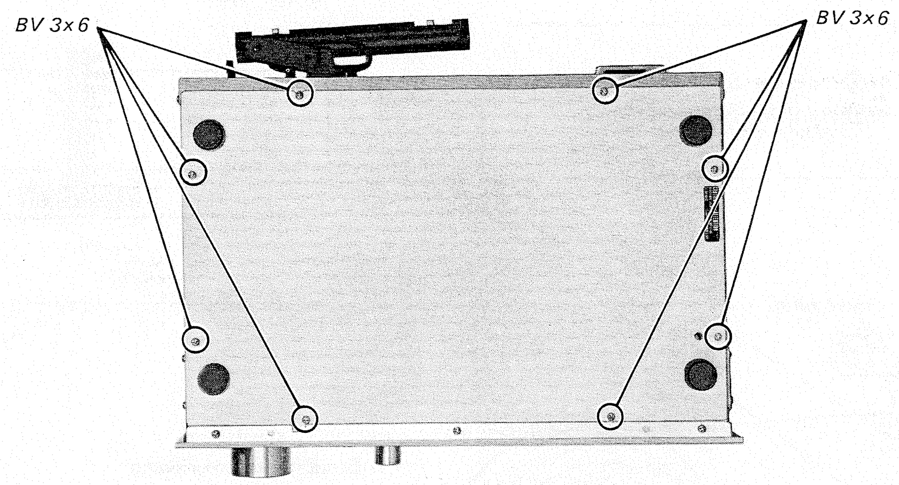
Follow the disassembly procedure in the numerical order given.


front panel
❶ L-shaped wrench (2 mm)
❹ BV3x6
❻
❸ FUNCTION knob
❷ TUNING knob

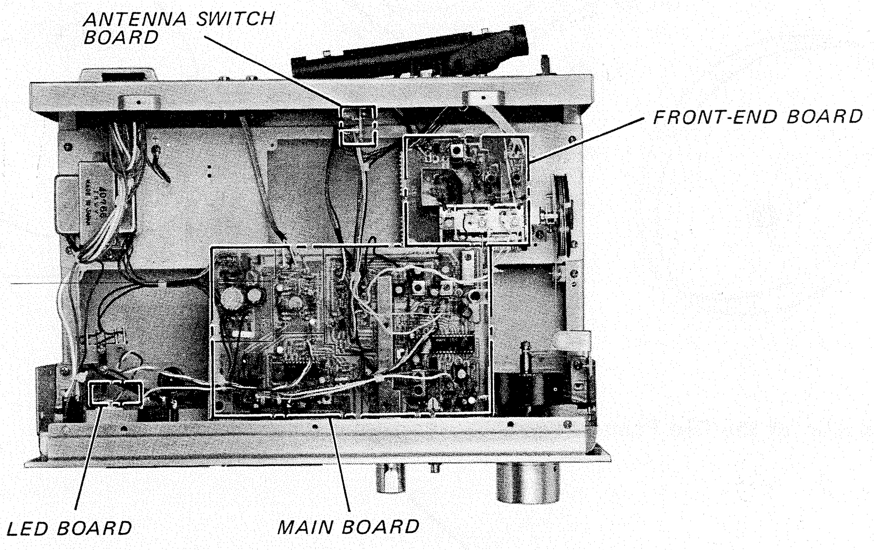
Bottom View



BOTTOM COVER REMOVAL

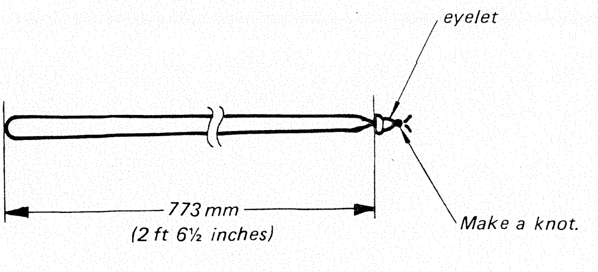

BV 3x6
BV 3x6

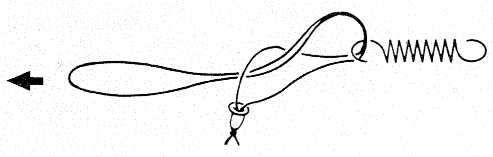
INTERNAL VIEW


ANTENNA SWITCH BOARD
FRONT-END BOARD
LED BOARD
MAIN BOARD

2-2. DIAL CORD STRINGING

1. Dial Cord Preparation

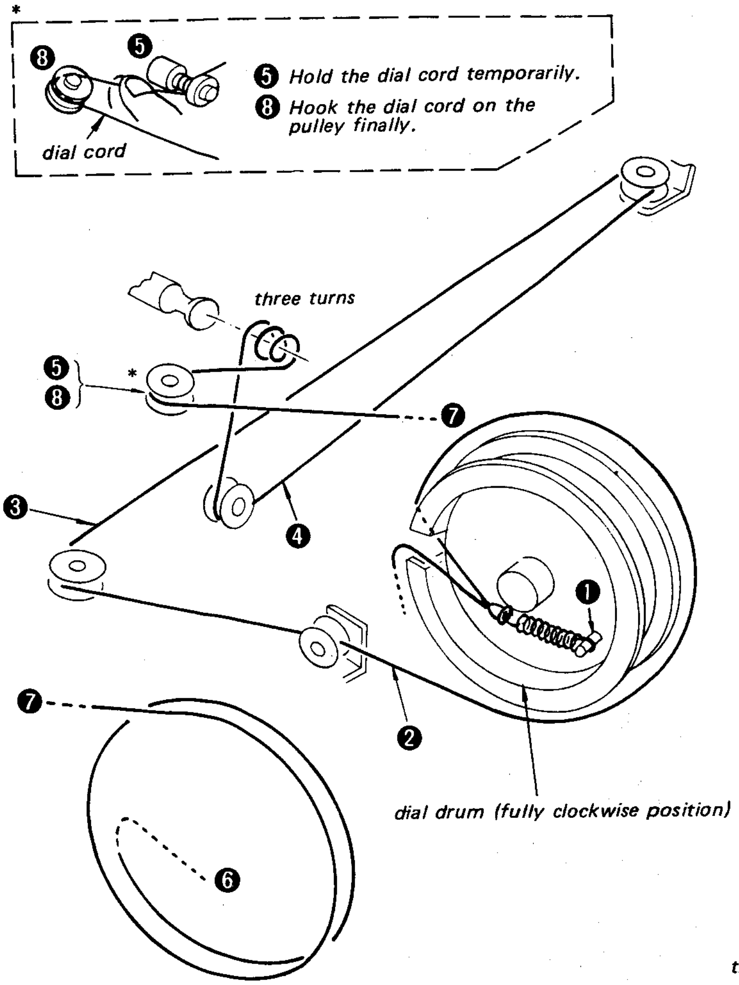

eyelet
773 mm
(2 ft 6½ inches)
Make a knot.



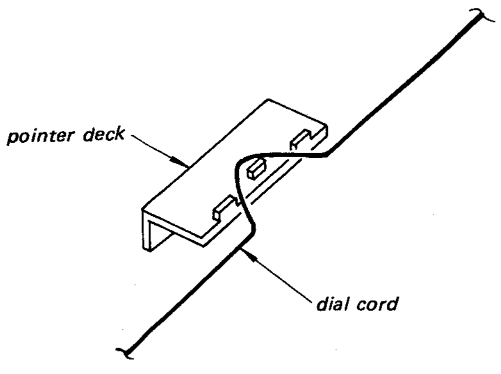
2. Dial Cord Stringing

Set the shaft of the tuning capacitor to fully clockwise position.

Proceed in the numerical order given.


*
❽
❺
❺ Hold the dial cord temporarily.
❽ Hook the dial cord on the pulley finally.
dial cord
three turns
❺
❽
*
❼
❸
❹
❶
❼
❷
dial drum (fully clockwise position)
❻

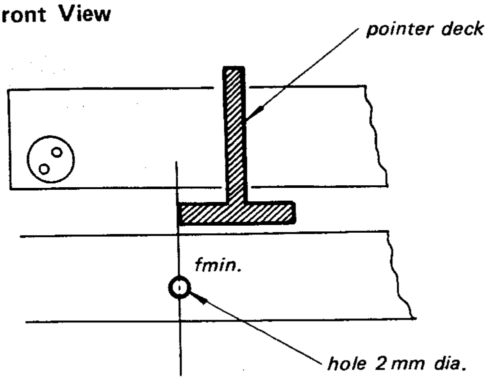
3. Installation of the Dial Pointer


pointer deck
dial cord

4. Dial Pointer Setting

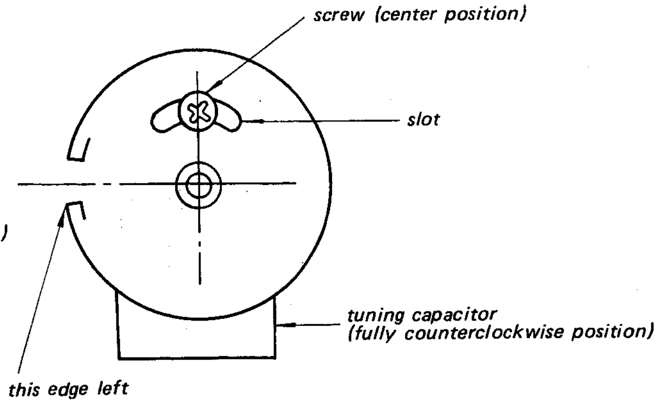
Set the dial pointer as shown below.

Front View


pointer deck
fmin.
hole 2 mm dia.

5. Dial Drum Fixing

Fix the dial drum to the tuning capacitor as shown below.


screw (center position)
slot
tuning capacitor (fully counterclockwise position)
this edge left

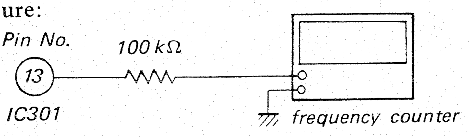
SECTION 3
ADJUSTMENTS

FM SECTION

VCO Adjustment

Mode: FM Stereo
No Signal

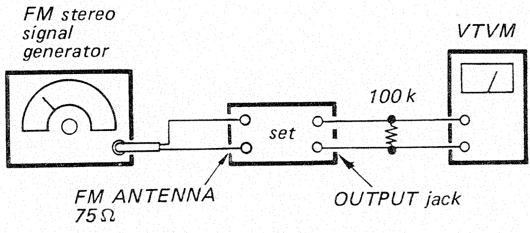
Procedure:


Pin No.
13
IC301
100 kΩ
frequency counter

Adjust RV301 for 76 kHz ±20 Hz on the counter.

FM Stereo Separation Adjustment

Procedure:


FM stereo signal generator
VTVM
100 k
set
FM ANTENNA 75 Ω
OUTPUT jack

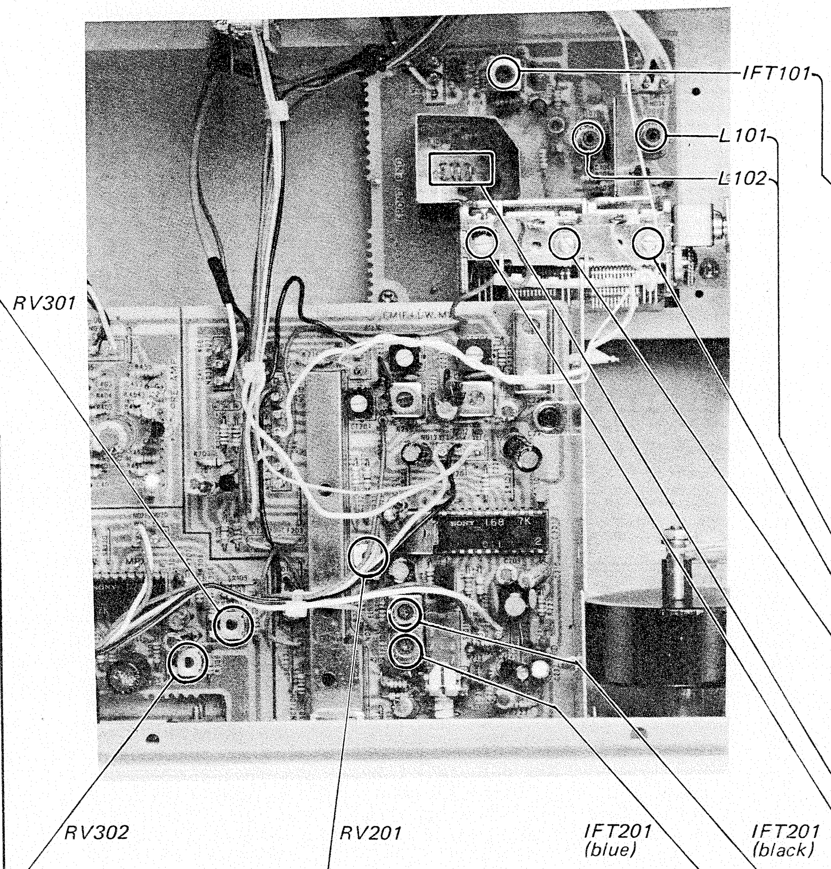
Carrier frequency: 98 MHz
Output level: 1 mV (60 dB)
Mode: FM Stereo
Modulation:
Audio (400 Hz): 33.75 kHz deviation (45%)
Pilot (19 kHz): 7.5 kHz deviation (10%)
Sub channel (38 kHz): 33.75 kHz deviation (45%)

FUNCTION Switch: FM Stereo

FM stereo signal generator output channel	VTVM connection	VTVM reading
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV302 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV302 for minimum reading.

Stereo separation: Ⓐ−Ⓑ, Ⓒ−Ⓓ.

The difference between separations Ⓐ−Ⓑ and Ⓒ−Ⓓ are to be equal.

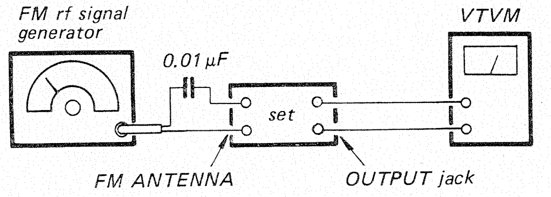

IFT101
L101
L102
RV301
RV302
RV201
IFT201 (blue)
IFT201 (black)

Muting Level Adjustment

Setting:

MUTING switch: ON

Procedure:


FM rf signal generator
0.01 μF
set
VTVM
FM ANTENNA
OUTPUT jack

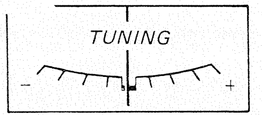
Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)

1. Apply 25 dB signal.
2. Turn RV201 until the VTVM reading suddenly increases.

Discriminator Alignment

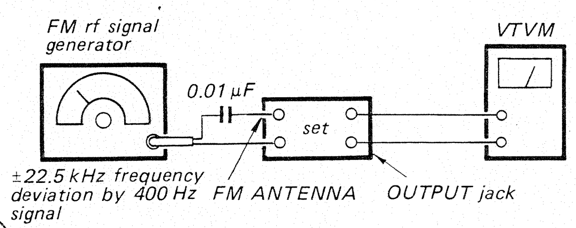
Procedure:

1. Primary-Side of IFT201
   1) Detune the set.
   2) Adjust the primary-side core (blue) of IFT201 for zero center on the TUNING meter.



Setting:

FUNCTION selector: FM
MONO switch: MONO
MUTING switch: OFF


FM rf signal generator
0.01 μF
set
VTVM
±22.5 kHz frequency deviation by 400 Hz signal
FM ANTENNA
OUTPUT jack

FM IF ALIGNMENT

FM Signal Generator Setting:

Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)
Output level: 1 mV (60 dB)

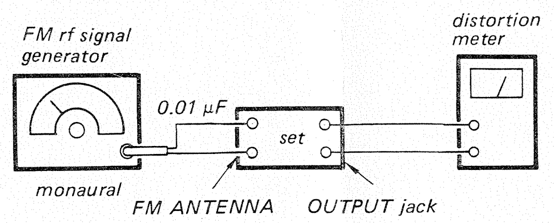
Tune the tuner to 98 MHz and adjust IFT101 for maximum reading on VTVM.

FM TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L101, 102	87.2 MHz
CT101	108.4 MHz
CT102	

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L104	87.5 MHz
CT103	108 MHz

Note:
Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

2. Secondary-Side of IFT201


FM rf signal generator
distortion meter
0.01 μF
set
monaural
FM ANTENNA
OUTPUT jack

FM Signal Generator Setting:

Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)
Output level: 1 mV (60 dB)

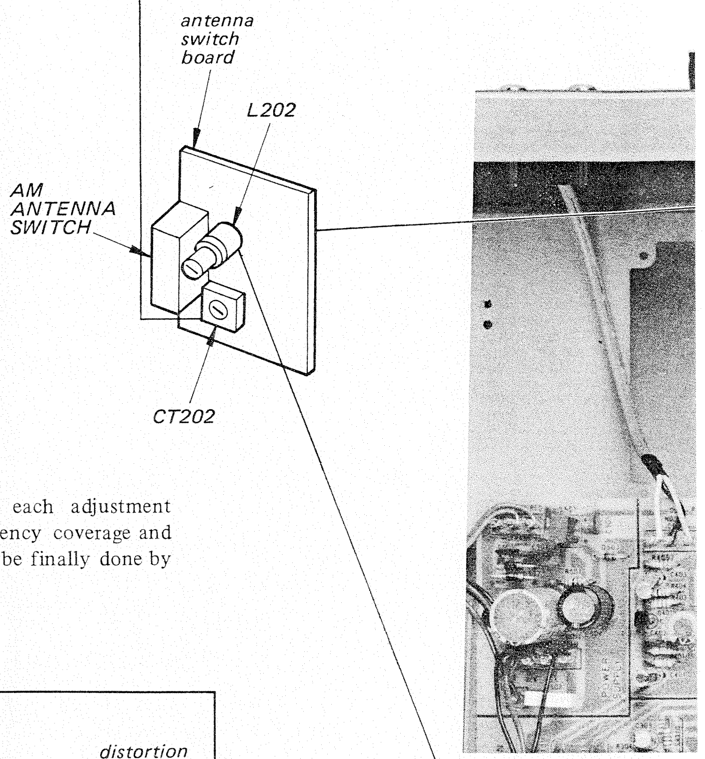
Procedure:

Tune the tuner to 98 MHz and adjust the secondary-side core (black) of IFT201 for minimum reading on the distortion meter.

3. Repeat the above steps 1 and 2 several times.

MW AND LW SECTION

LW TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L601	145 kHz
CT202	365 kHz

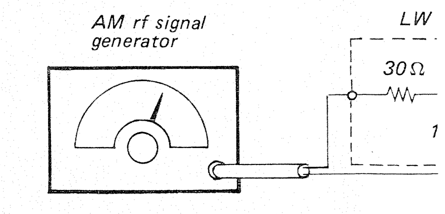

antenna switch board
L202
AM ANTENNA SWITCH
CT202

2 LW EXT Antenna Coil Adjustment

Setting:

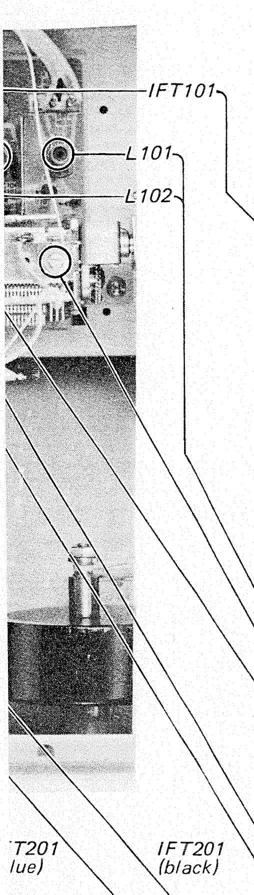
AM ANTENNA switch: EXT

Procedure:


AM rf signal generator
LW
30 Ω
1

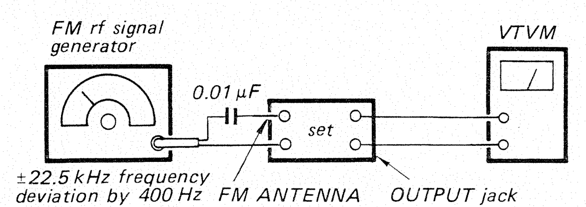
Carrier frequency: 230 kHz
30% amplitude modulation by 400 Hz signal

Tune the set to 230 kHz and adju
maximum reading on VTVM.


IFT101
L101
L102
T201
lue)
IFT201
(black)

Setting:

FUNCTION selector: FM
MONO switch: MONO
MUTING switch: OFF


FM rf signal generator
VTVM
0.01 μF
set
±22.5 kHz frequency deviation by 400 Hz signal
FM ANTENNA
OUTPUT jack

FM IF ALIGNMENT

FM Signal Generator Setting:

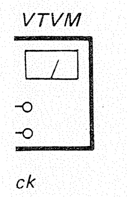
Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)
Output level: 1 mV (60 dB)

Tune the tuner to 98 MHz and adjust IFT101 for maximum reading on VTVM.

FM TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L101, 102	87.2 MHz
CT101	108.4 MHz
CT102	

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L104	87.5 MHz
CT103	108 MHz

Note:
Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.



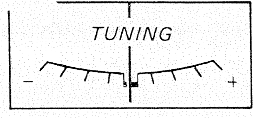
ation

uddenly

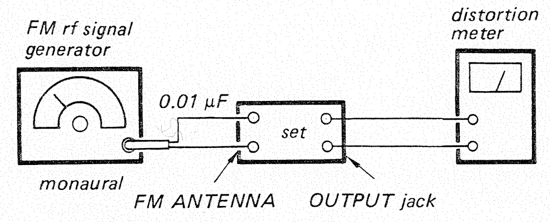
Discriminator Alignment

Procedure:

1. Primary-Side of IFT201
   1) Detune the set.
   2) Adjust the primary-side core (blue) of IFT201 for zero center on the TUNING meter.



2. Secondary-Side of IFT201


FM rf signal generator
distortion meter
0.01 μF
set
monaural
FM ANTENNA
OUTPUT jack

FM Signal Generator Setting:

Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)
Output level: 1 mV (60 dB)

Procedure:

Tune the tuner to 98 MHz and adjust the secondary-side core (black) of IFT201 for minimum reading on the distortion meter.

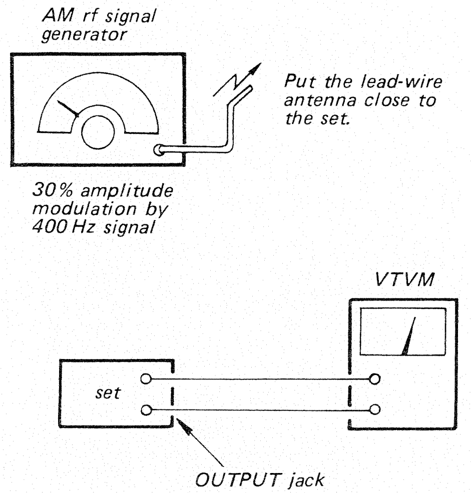
3. Repeat the above steps 1 and 2 several times.

MW AND LW SECTION

1 MW/LW Frequency Coverage and Tracking Adjustments

Setting:

FUNCTION switch: MW or LW
AM ANTENNA switch: BUILT IN


AM rf signal generator
Put the lead-wire antenna close to the set.
30% amplitude modulation by 400 Hz signal
VTVM
set
OUTPUT jack

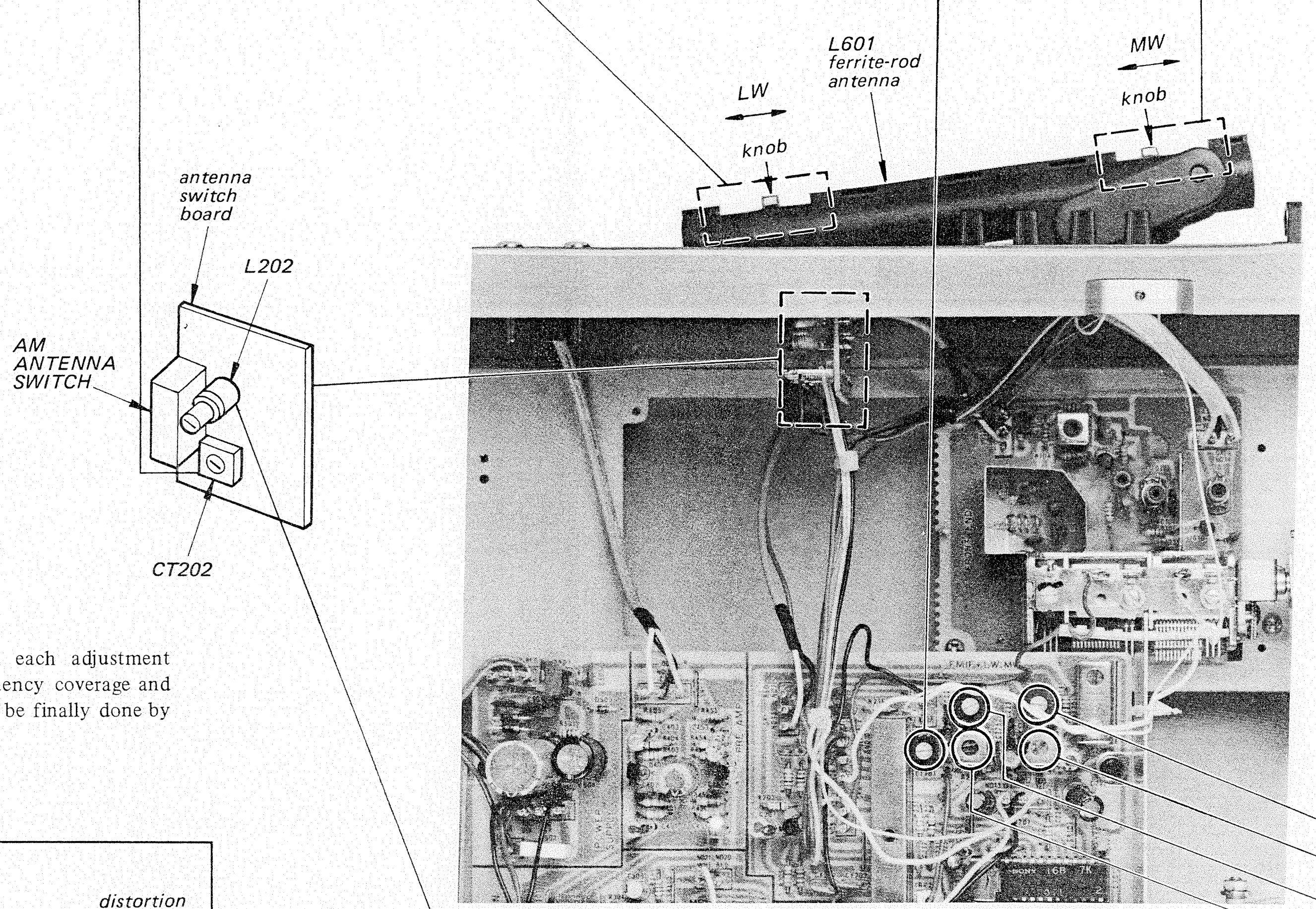
Note:
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.
- Set the AM rf signal generator output level as weak as possible.
- CFT201 is adjusted in the factory, so no AM IF alignment is necessary.

LW TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L601	145 kHz
CT202	365 kHz

MW TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L601	600 kHz
CT201	1,400 kHz

LW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
CT204	365 kHz
T202	145 kHz

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
CT203	1,650 kHz
T201	520 kHz

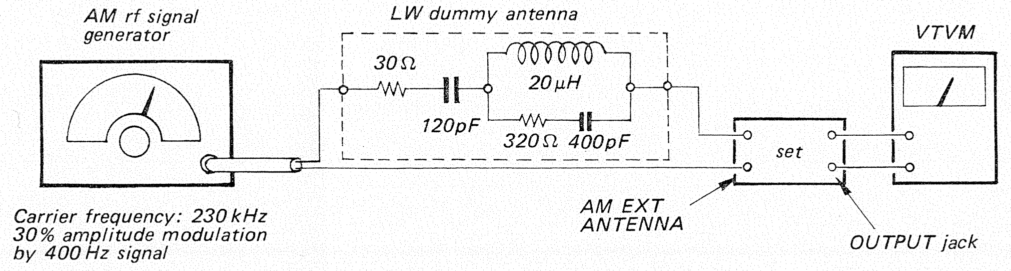

L601 ferrite-rod antenna
LW
knob
MW
knob
antenna switch board
L202
AM ANTENNA SWITCH
CT202

2 LW EXT Antenna Coil Adjustment

Setting:

AM ANTENNA switch: EXT

Procedure:


AM rf signal generator
LW dummy antenna
30Ω
20μH
120pF
320Ω
400pF
VTVM
set
AM EXT ANTENNA
OUTPUT jack
Carrier frequency: 230 kHz
30% amplitude modulation by 400 Hz signal

Tune the set to 230 kHz and adjust L202 for maximum reading on VTVM.

SECTION 4
DIAGRAMS

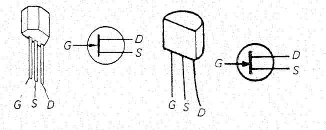
4-1. MOUNTING DIAGRAM

– Conductor Side –

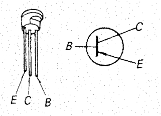
Replacement Semiconductors

For replacement, use semiconductors except in (   ).

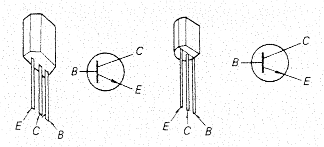
Q101: 2SK42-2   (2SK49H)



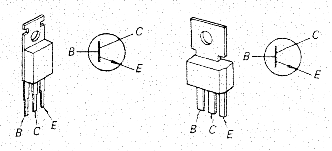
Q102, 103, 201: 2SC930



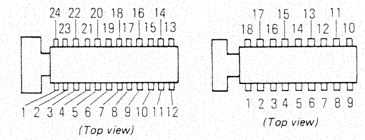
Q401, 451: 2SC1364 (2SC945)



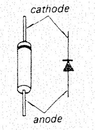
Q501: 2SC1173   (2SC1096)



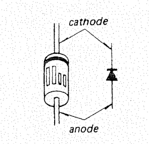
IC201: CX168   IC301: CX178


24 22 20 18 16 14
23 21 19 17 15 13
1 2 3 4 5 6 7 8 9 10 11 12
(Top view)
17 15 13 11
18 16 14 12 10
1 2 3 4 5 6 7 8 9
(Top view)

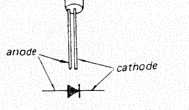
D101, 201: 1S1555 (1S2473)
D501, 502: 10E2 (10E1)


cathode
anode

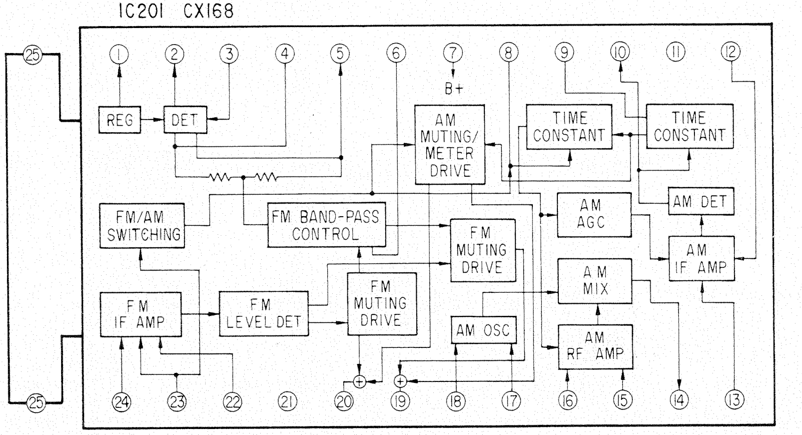
D503: EQB01-13 (RD13EB)


cathode
anode

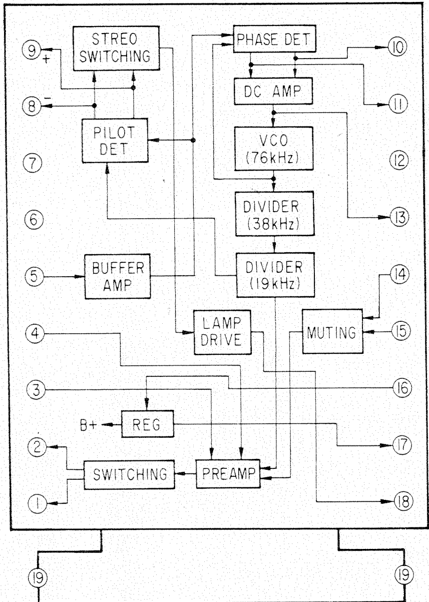
D601: TLR-109 (GL5PR1)


anode
cathode

IC201 CX168

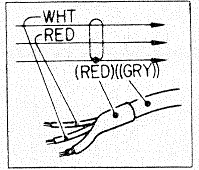

REG
DET
B+
AM MUTING/ METER DRIVE
TIME CONSTANT
TIME CONSTANT
FM/AM SWITCHING
FM BAND-PASS CONTROL
AM AGC
AM DET
FM MUTING DRIVE
AM IF AMP
AM MIX
FM IF AMP
FM LEVEL DET
FM MUTING DRIVE
AM OSC
AM RF AMP
25
25

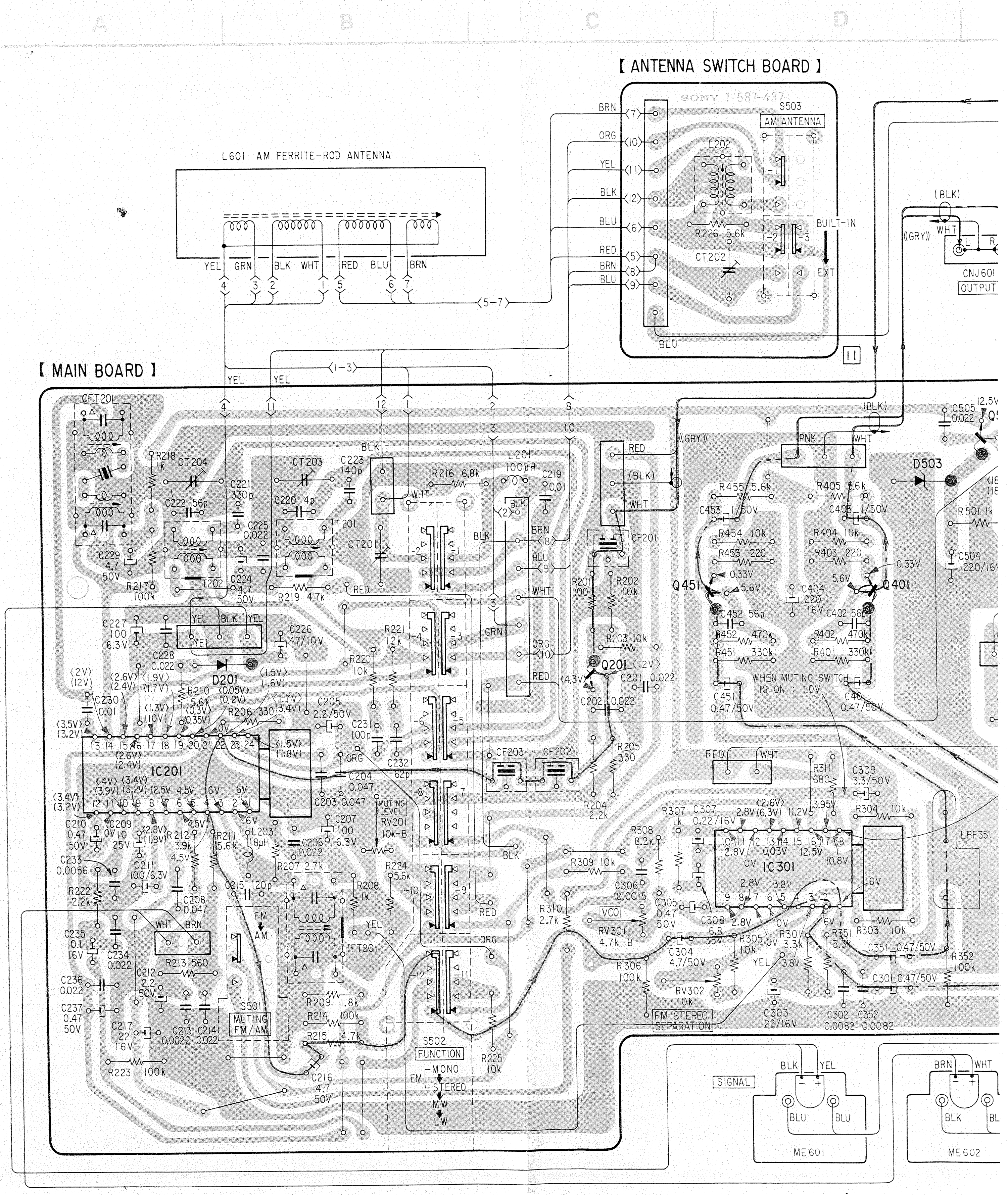
IC301 CX178


STEREO SWITCHING
PHASE DET
DC AMP
PILOT DET
VCO (76kHz)
DIVIDER (38kHz)
BUFFER AMP
DIVIDER (19kHz)
LAMP DRIVE
MUTING
B+
REG
SWITCHING
PREAMP
19
19

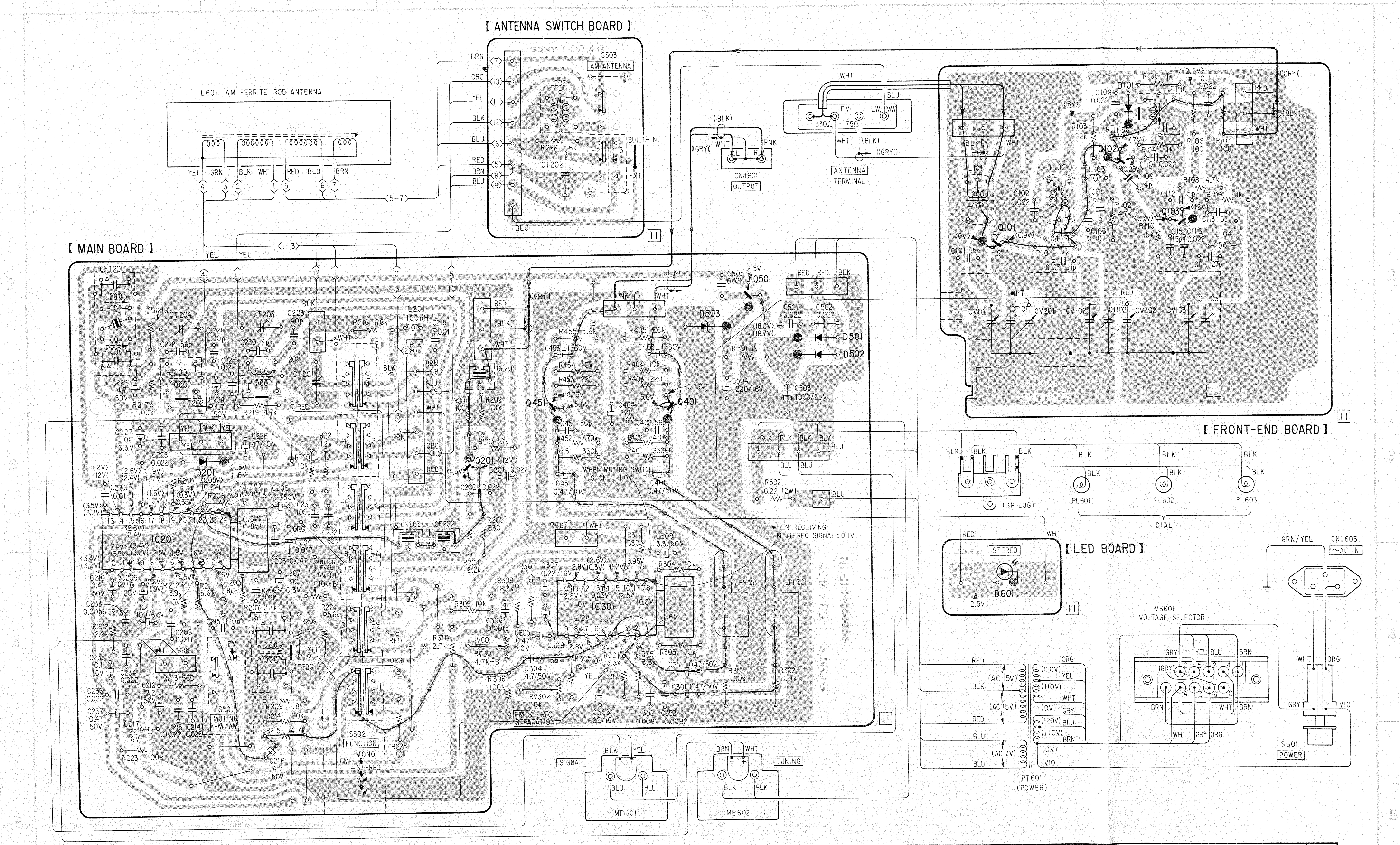
Note:

- [ ] : indicates side identified with part number.
- ▨ : B+ pattern.
- ➡ : signal path
  - ➡ : L-CH
  - ➡ : R-CH
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (20kΩ/V).
  - (   ) : AM
  - 〈   〉: FM
  - No mark: AM and FM in common
- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)((GRY))

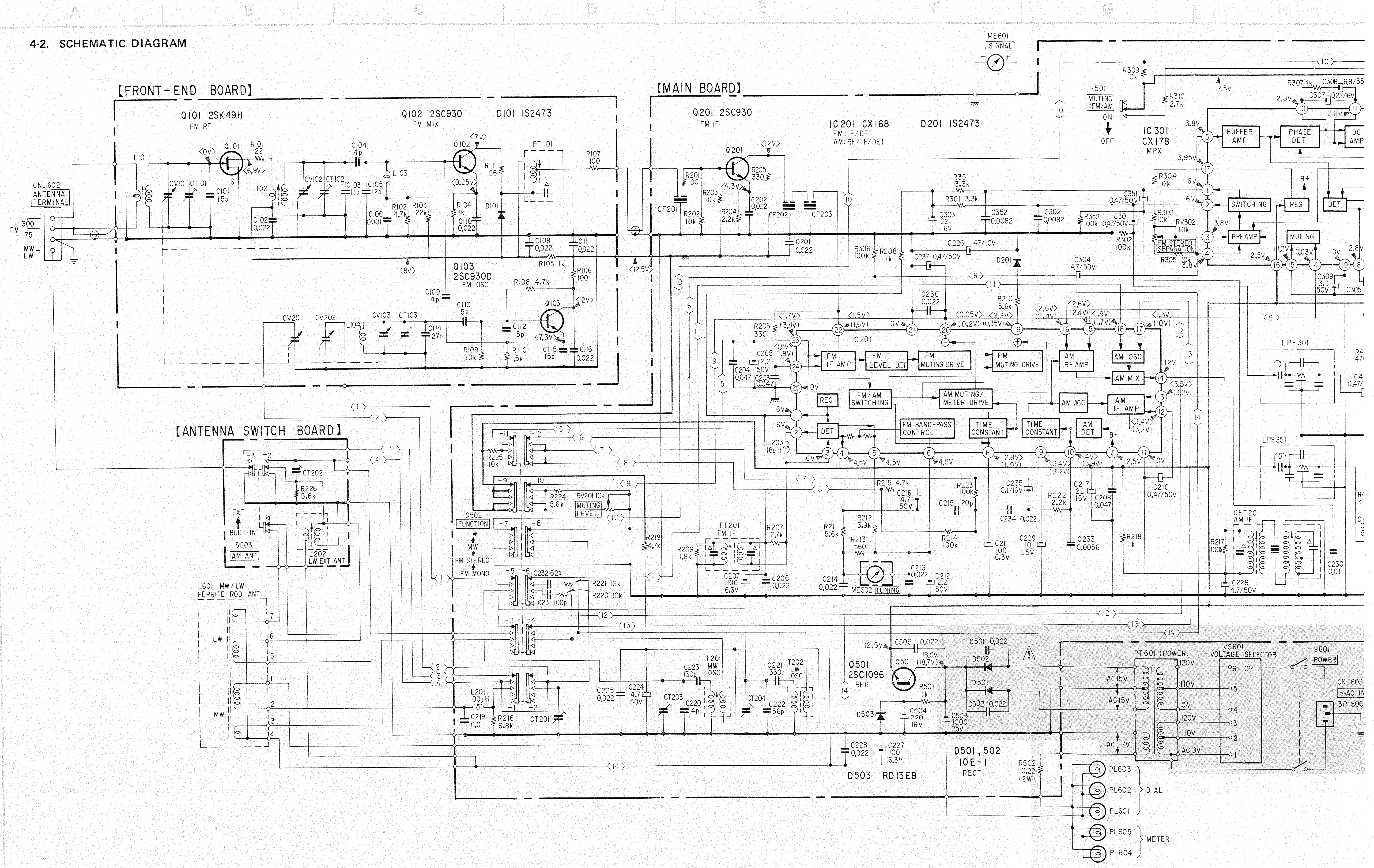

A
B
C
D
1
2
3
4
5
【ANTENNA SWITCH BOARD】
SONY 1-587-437
S503 AM ANTENNA
L202
BUILT-IN
EXT
R226 5.6k
CT202
BRN
ORG
YEL
BLK
BLU
RED
L601 AM FERRITE-ROD ANTENNA
YEL GRN BLK WHT RED BLU BRN
(5-7)
(1-3)
【MAIN BOARD】
CFT201
CT204
CT203
C223 140p
L201 100μH
R216 6.8k
C219 0.01
T201
CT201
T202
CF201
D201
Q201
IC201
CF203
CF202
S501 MUTING FM/AM
S502 FUNCTION FM MONO STEREO MW LW
IFT201
MUTING LEVEL RV201 10k-B
Q451
Q401
D503
IC301
RV301 4.7k-B
RV302 10k FM STEREO SEPARATION
LPF351
CNJ601 OUTPUT
SIGNAL
ME601
ME602
R501 1k
C504 220/16V
C505 0.022
WHEN MUTING SWITCH IS ON : 1.0V

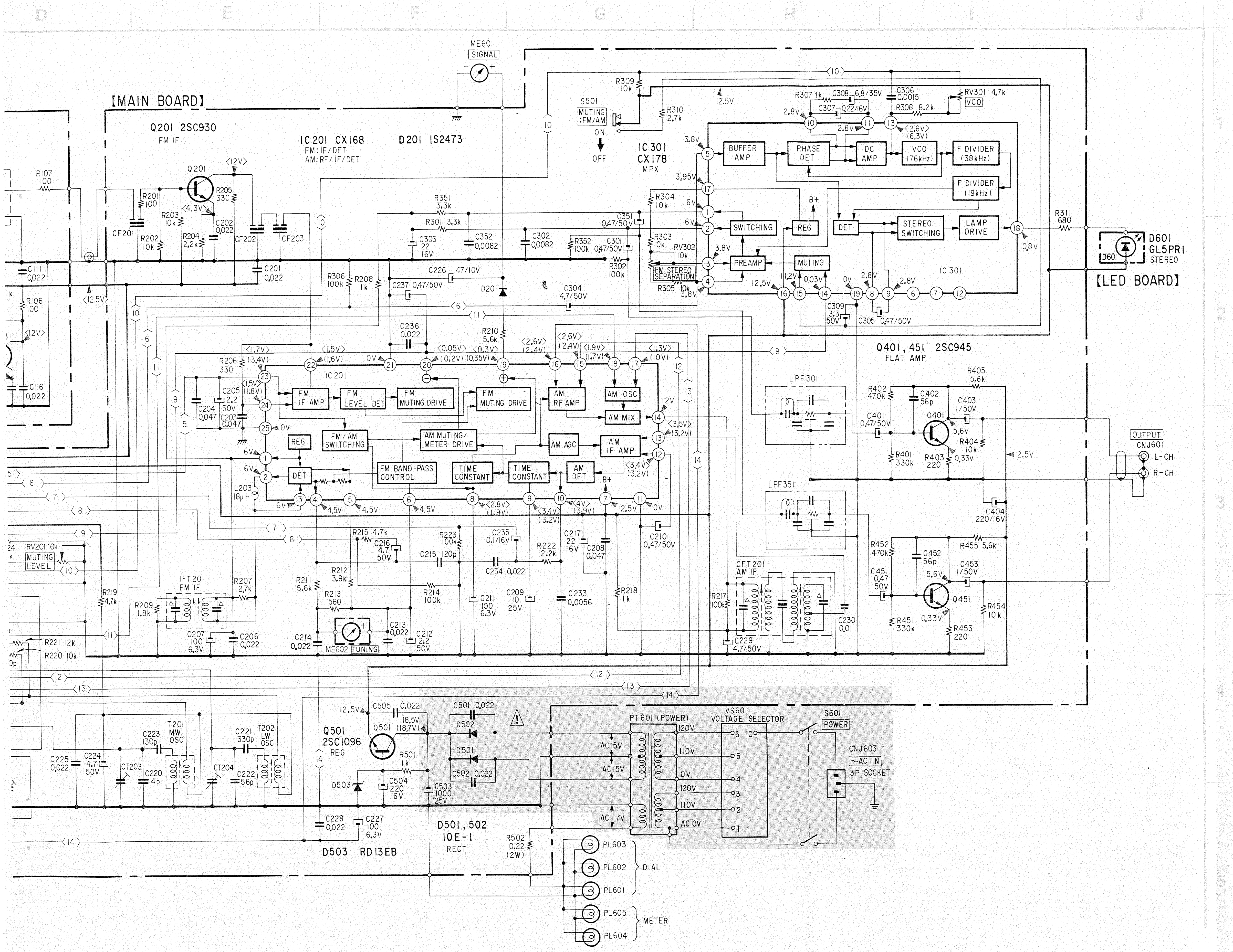
Q, IC	IC201	201	451	IC301	401	501
D	201				503	


A
B
C
D
E
F
G
H
1
2
3
4
5
【ANTENNA SWITCH BOARD】
SONY 1-587-437
S503
AM ANTENNA
BUILT-IN
EXT
L202
R226 5.6k
CT202
L601 AM FERRITE-ROD ANTENNA
YEL
GRN
BLK
WHT
RED
BLU
BRN
(5-7)
(1-3)
【MAIN BOARD】
CFT201
CT204
CT203
C221 330p
C223 140p
R216 6.8k
L201 100μH
C219 0.01
C222 56p
C220 4p
T201
T202
CT201
C229 4.7 50V
C224 4.7 50V
C225 0.022
R217 100k
R219 4.7k
R218 1k
C227 100 6.3V
C226 47/10V
C228 0.022
D201
R221 12k
R220 10k
C230 0.01
R210 5.6k
R206 330
C205 2.2/50V
C231 100p
IC201
C232 82p
C204 0.047
C203 0.047
C210 0.47 50V
C209 10 25V
R212 3.9k
R211 5.6k
L203 18μH
C206 0.022
C207 100 6.3V
MUTING LEVEL RV201 10k-B
C233 0.0056
C211 100/6.3V
R207 2.7k
R224 5.6k
R208 1k
C208 0.047
R222 2.2k
C235 0.1 16V
C234 0.022
R213 560
C215 120p
IFT201
C236 0.022
C237 0.47 50V
C212 2.2 50V
C217 22 16V
C213 0.0022
C214 0.022
S501 MUTING FM/AM
R209 1.8k
R214 100k
R215 4.7k
C216 4.7 50V
R223 100k
S502 FUNCTION
FM MONO STEREO
MW
LW
R225 10k
CF201
CF202
CF203
R201 100
R202 10k
R203 10k
Q201
C201 0.022
C202 0.022
R205 330
R204 2.2k
WHEN MUTING SWITCH IS ON : 1.0V
R455 5.6k
R405 5.6k
C453 1/50V
C403 1/50V
R454 10k
R404 10k
R453 220
R403 220
Q451
Q401
C452 56p
C402 56p
C404 220 16V
R452 470k
R402 470k
R451 330k
R401 330k
C451 0.47/50V
C401 0.47/50V
D503
C505 0.022
Q501
C501 0.022
C502 0.022
D501
D502
R501 1k
C504 220/16V
C503 1000/25V
R311 680
C309 3.3/50V
WHEN RECEIVING FM STEREO SIGNAL: 0.1V
R307 1k
C307 0.22/16V
R304 10k
R308 8.2k
IC301
R309 10k
C306 0.0015
C305 0.47 50V
C308 6.8 35V
R310 2.7k
VCO
RV301 4.7k-B
R305 10k
R301 3.3k
R351 3.3k
R303 10k
C351 0.47/50V
C301 0.47/50V
R306 100k
C304 4.7/50V
RV302 10k
FM STEREO SEPARATION
C303 22/16V
C302 0.0082
C352 0.0082
R352 100k
R302 100k
LPF351
LPF301
SONY 1-587-435
DIP IN
CNJ601 OUTPUT
ANTENNA TERMINAL
FM 75Ω
330Ω
LW, MW
R105 1k
C111 0.022
C108 0.022
D101
IFT101
R103 22k
R111 56
Q102
R104 1k
C110 0.022
C109 4p
R106 100
R107 100
L101
L102
L103
C102 0.022
C105 2p
R102 4.7k
C106 0.001
Q101
C104
R101 22
C103 1p
C101 15p
R108 4.7k
C112 15p
R109 10k
Q103
C113 5p
R110 1.5k
C115 15p
C116 0.022
L104
C114 27p
CV101
CT101
CV201
CV102
CT102
CV202
CV103
CT103
SONY 1-587-436
【FRONT-END BOARD】
R502 0.22 (2W)
(3P LUG)
PL601
PL602
PL603
DIAL
【LED BOARD】
STEREO
D601
12.5V
GRN/YEL
CNJ603 ~AC IN
VS601 VOLTAGE SELECTOR
(120V)
(110V)
(0V)
(AC 15V)
(AC 7V)
PT601 (POWER)
V10
S601 POWER
SIGNAL
TUNING
ME601
ME602

Q, IC	IC201	201	451	IC301	401		501		101	102	103	Q, IC
D	201					503		501 502	601	101		D

4-2. SCHEMATIC DIAGRAM


A
B
C
D
E
F
G
H
1
2
3
4
5
[FRONT-END BOARD]
Q101 2SK49H FM RF
Q102 2SC930 FM MIX
D101 1S2473
Q103 2SC930D FM OSC
IFT101
CNJ602 ANTENNA TERMINAL
FM 300 75
MW-LW
[MAIN BOARD]
Q201 2SC930 FM IF
IC201 CX168 FM: IF/DET AM: RF/IF/DET
D201 1S2473
IC301 CX178 MPX
ME601 SIGNAL
S501 MUTING :FM/AM ON OFF
FM IF AMP
FM LEVEL DET
FM MUTING DRIVE
AM RF AMP
AM OSC
AM MIX
REG
FM/AM SWITCHING
AM MUTING/METER DRIVE
AM AGC
AM IF AMP
DET
FM BAND-PASS CONTROL
TIME CONSTANT
AM DET
BUFFER AMP
PHASE DET
SWITCHING
PREAMP
MUTING
FM STEREO SEPARATION
LPF301
LPF351
CFT201 AM IF
IFT201 FM IF
ME602 TUNING
T201 MW OSC
T202 LW OSC
[ANTENNA SWITCH BOARD]
EXT BUILT-IN S503 AM ANT
L202 LW EXT ANT
L601 MW/LW FERRITE-ROD ANT
LW
MW
S502 FUNCTION LW MW FM STEREO FM MONO
RV201 10k MUTING LEVEL
Q501 2SC1096 REG
D503 RD13EB
D501, 502 10E-1 RECT
PT601 (POWER)
VS601 VOLTAGE SELECTOR
S601 POWER
CNJ603 ~AC IN 3P SOCKET
PL603
PL602
PL601
DIAL
PL605
PL604
METER


D
E
F
G
H
I
J
1
2
3
4
5
[MAIN BOARD]
Q201 2SC930
FM IF
IC201 CX168
FM: IF/DET
AM: RF/IF/DET
D201 1S2473
ME601
SIGNAL
S501
MUTING
:FM/AM
ON
OFF
IC301
CX178
MPX
BUFFER AMP
PHASE DET
DC AMP
VCO (76kHz)
F DIVIDER (38kHz)
F DIVIDER (19kHz)
SWITCHING
REG
DET
STEREO SWITCHING
LAMP DRIVE
PREAMP
MUTING
FM STEREO SEPARATION
RV301 4.7k
VCO
RV302
D601
GL5PR1
STEREO
[LED BOARD]
FM IF AMP
FM LEVEL DET
FM MUTING DRIVE
AM RF AMP
AM OSC
AM MIX
FM/AM SWITCHING
AM MUTING/ METER DRIVE
AM AGC
AM IF AMP
FM BAND-PASS CONTROL
TIME CONSTANT
AM DET
REG
DET
Q401, 451 2SC945
FLAT AMP
LPF301
LPF351
CFT201
AM IF
IFT201
FM IF
RV201 10k
MUTING LEVEL
ME602
TUNING
OUTPUT
CNJ601
L-CH
R-CH
Q501
2SC1096
REG
D503 RD13EB
D501, 502
10E-1
RECT
PT601 (POWER)
VS601
VOLTAGE SELECTOR
S601
POWER
CNJ603
~AC IN
3P SOCKET
T201
MW OSC
T202
LW OSC
PL603
PL602
PL601
DIAL
PL605
PL604
METER
120V
110V
0V
AC15V
AC7V
AC 0V

Note:

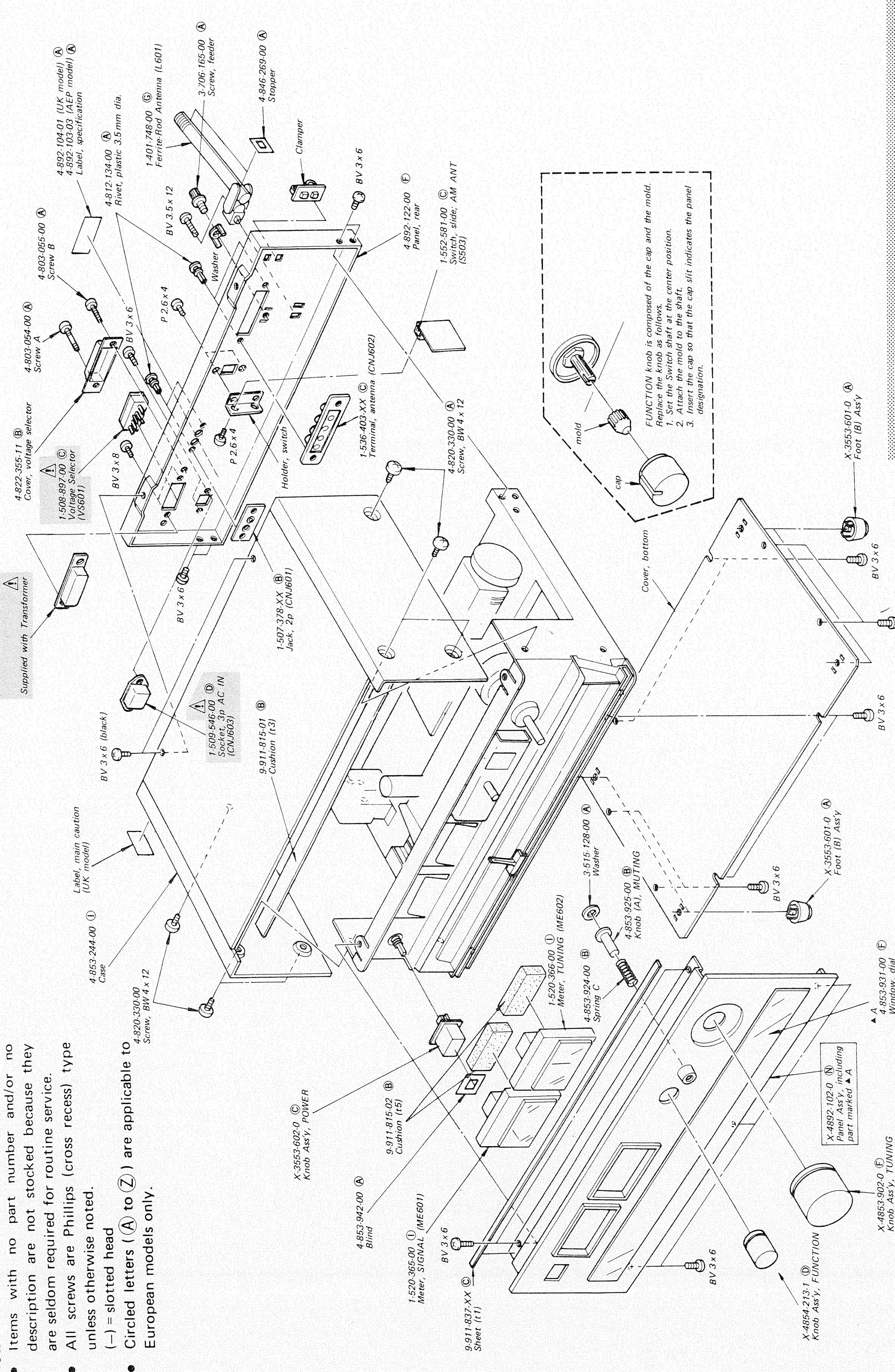
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ: 1000Ω; MΩ: 1000kΩ
- △: internal component.
- ☐ : panel designation.
- ⏚ : direct connection to points marked ⏚ on the chassis.
- ▬▬: B+ bus.
- Voltage variations may be noted due to normal production tolerances.
- ☐ : adjustment for repair.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under no-signal (detuned) conditions with a VOM (20kΩ/V).
  ( ) : AM
  〈 〉: FM
  No mark: AM and FM in common
- Switch

Ref. No.	Switch	Position
S501	FM/AM MUTING	OFF
S502	FUNCTION	FM MONO
S503	AM ANTENNA	BUILT-IN
S601	POWER	OFF

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 5
EXPLODED VIEWS

5-1.


4-822-355-11 Ⓑ Cover, voltage selector
⚠ 1-508-897-00 Ⓒ Voltage Selector (VS601)
4-803-054-00 Ⓐ Screw A
4-803-055-00 Ⓐ Screw B
4-812-134-00 Ⓐ Rivet, plastic 3.5 mm dia.
4-892-104-01 (UK model) Ⓐ
4-892-103-03 (AEP model) Ⓐ
Label, specification
1-401-748-00 Ⓖ Ferrite-Rod Antenna (L601)
3-706-165-00 Ⓐ Screw, feeder
4-846-269-00 Ⓐ Stopper
Clamper
BV 3.5 x 12
Washer
BV 3 x 6
P 2.6 x 4
BV 3 x 8
4-892-122-00 Ⓕ Panel, rear
1-552-581-00 Ⓒ Switch, slide; AM ANT (S503)
1-536-403-XX Ⓒ Terminal, antenna (CN602)
Holder, switch
4-820-330-00 Ⓐ Screw, BW 4 x 12
X-3553-601-0 Ⓐ Foot (B) Ass'y
mold
cap
Supplied with Transformer ⚠
1-507-378-XX Ⓑ Jack, 2p (CNJ601)
⚠ 1-509-546-00 Ⓓ Socket, 3p AC IN (CN603)
BV 3 x 6 (black)
9-911-815-01 Ⓑ Cushion (t3)
Cover, bottom
Label, main caution (UK model)
4-853-244-00 Ⓘ Case
4-820-330-00 Screw, BW 4 x 12
3-515-128-00 Ⓐ Washer
4-853-925-00 Ⓑ Knob (A), MUTING
X-3553-601-0 Ⓐ Foot (B) Ass'y
1-520-366-00 Ⓘ Meter, TUNING (ME602)
4-853-924-00 Ⓑ Spring C
▲A 4-853-931-00 Ⓕ Window, dial
X-4892-102-0 Ⓝ Panel Ass'y, including part marked ▲A
X-3553-602-0 Ⓒ Knob Ass'y, POWER
9-911-816-02 Ⓑ Cushion (t5)
4-853-942-00 Ⓐ Blind
1-520-365-00 Ⓘ Meter, SIGNAL (ME601)
9-911-837-XX Ⓒ Sheet (t1)
X-4854-213-1 Ⓓ Knob Ass'y, FUNCTION
X-4853-902-0 Ⓕ Knob Ass'y, TUNING

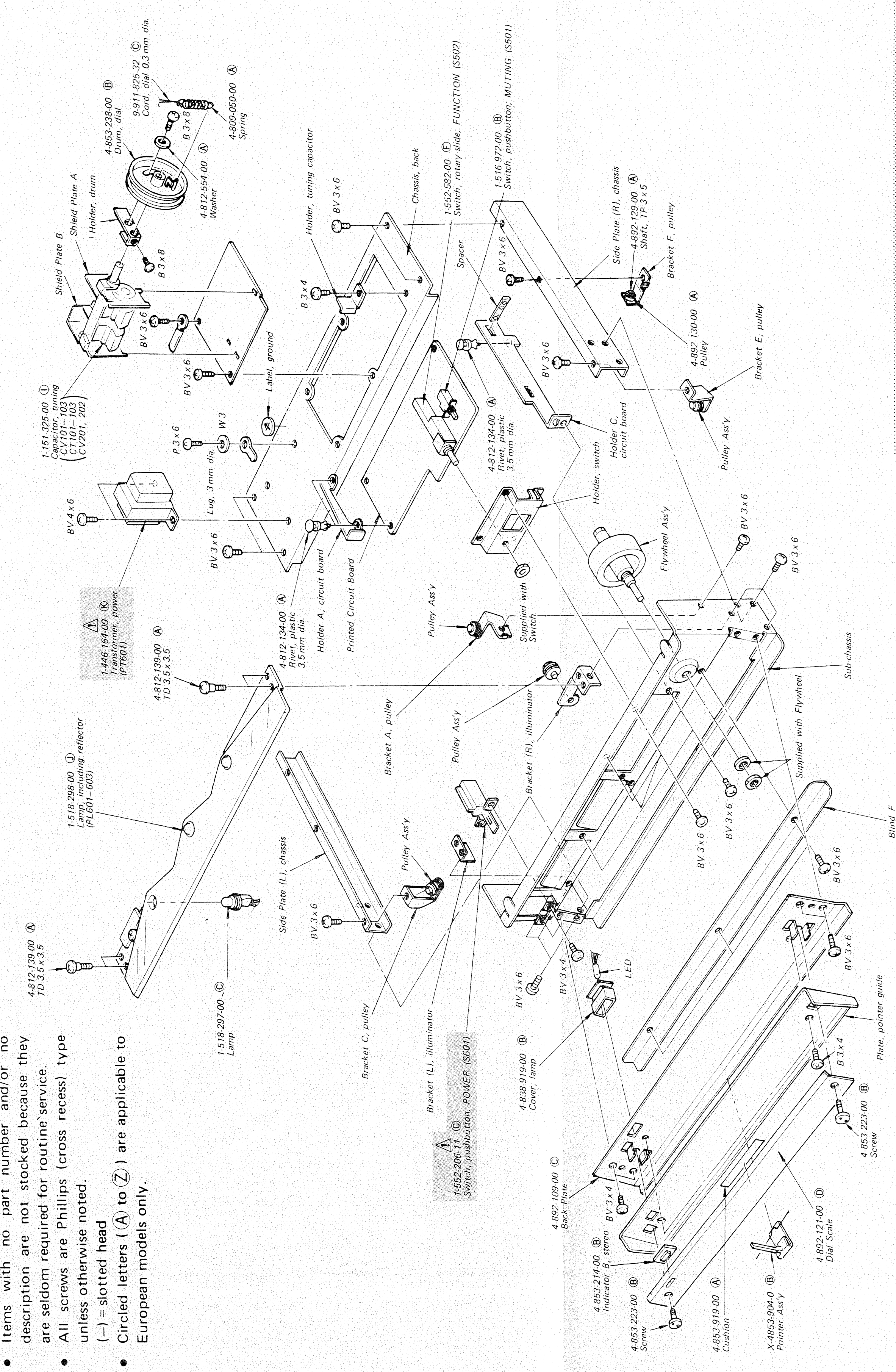
FUNCTION knob is composed of the cap and the mold. Replace the knob as follows.

1. Set the Switch shaft at the center position.
2. Attach the mold to the shaft.
3. Insert the cap so that the cap slit indicates the panel designation.

Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

5-2.

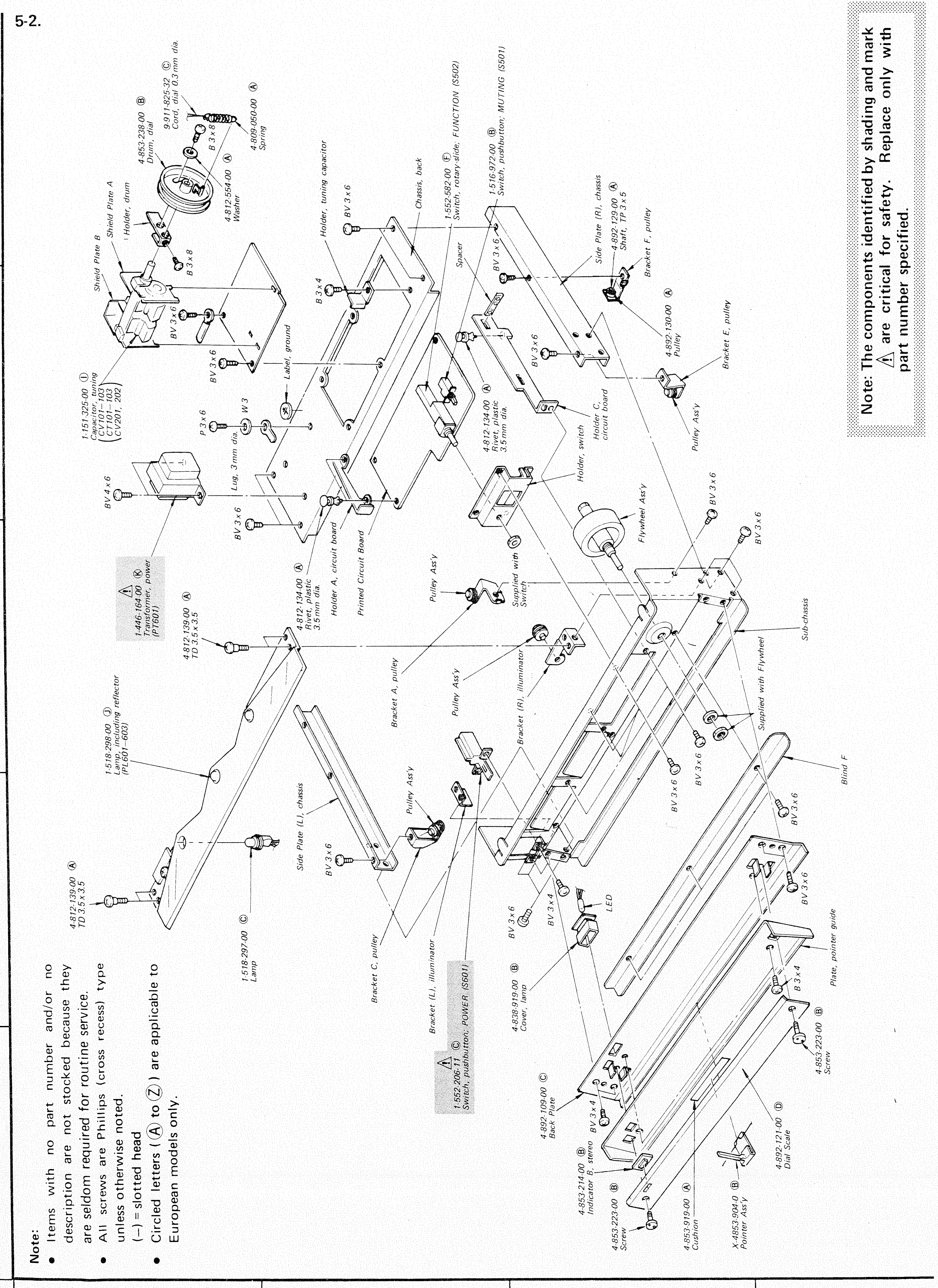

Shield Plate B
Shield Plate A
Holder, drum
4-853-238-00 Ⓑ Drum, dial
9-911-825-32 Ⓒ Cord, dial 0.3 mm dia.
B 3 x 8
4-812-554-00 Ⓐ Washer
4-809-050-00 Ⓐ Spring
Holder, tuning capacitor
Chassis, back
1-552-582-00 Ⓕ Switch, rotary-slide; FUNCTION (S502)
1-516-972-00 Ⓑ Switch, pushbutton; MUTING (S501)
Side Plate (R), chassis
4-892-129-00 Ⓐ Shaft, TP 3 x 5
Bracket F, pulley
4-892-130-00 Ⓐ Pulley
Bracket E, pulley
Pulley Ass'y
Spacer
4-812-134-00 Ⓐ Rivet, plastic 3.5 mm dia.
Holder C, circuit board
Holder, switch
1-151-325-00 Ⓘ Capacitor, tuning (CV101–103, CT101–103, CV201, 202)
P 3 x 6
W 3
Lug, 3 mm dia.
Label, ground
B 3 x 4
BV 3 x 6
BV 4 x 6
⚠ 1-446-164-00 Ⓚ Transformer, power (PT601)
4-812-139-00 Ⓐ TD 3.5 x 3.5
4-812-134-00 Ⓐ Rivet, plastic 3.5 mm dia.
Holder A, circuit board
Printed Circuit Board
Pulley Ass'y
Supplied with Switch
Flywheel Ass'y
Sub-chassis
Supplied with Flywheel
Bracket A, pulley
Bracket (R), illuminator
1-518-298-00 Ⓙ Lamp, including reflector (PL601–603)
Side Plate (L), chassis
Pulley Ass'y
Blind F
4-812-139-00 Ⓐ TD 3.5 x 3.5
1-518-297-00 Ⓒ Lamp
Bracket C, pulley
Bracket (L), illuminator
LED
BV 3 x 4
4-838-919-00 Ⓑ Cover, lamp
⚠ 1-552-206-11 Ⓒ Switch, pushbutton; POWER (S601)
Plate, pointer guide
4-853-223-00 Ⓑ Screw
4-892-109-00 Ⓒ Back Plate
4-853-214-00 Ⓑ Indicator B, stereo
4-853-223-00 Ⓑ Screw
4-853-919-00 Ⓐ Cushion
X-4853-904-0 Ⓑ Pointer Ass'y
4-892-121-00 Ⓓ Dial Scale

Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- Circ
  Eur

5-2.



E
D
C
B
A
1
2
3
4
4-853-238-00 Ⓑ Drum, dial
9-911-825-32 Ⓒ Cord, dial 0.3 mm dia.
4-809-050-00 Ⓐ Spring
4-812-554-00 Ⓐ Washer
Shield Plate A
Shield Plate B
Holder, drum
B 3 x 8
BV 3 x 6
1-151-325-00 Ⓘ Capacitor, tuning (CT101~103) (C7101~103) (CV201, 202)
P 3 x 6
W 3
Label, ground
Lug, 3 mm dia.
BV 4 x 6
BV 3 x 6
Holder, tuning capacitor
B 3 x 4
Chassis, back
1-552-582-00 Ⓕ Switch, rotary-slide, FUNCTION (S502)
1-516-972-00 Ⓑ Switch, pushbutton, MUTING (S501)
Spacer
Side Plate (R), chassis
4-892-129-00 Ⓐ Shaft, TP 3 x 5
Bracket F, pulley
4-892-130-00 Ⓐ Pulley
Bracket E, pulley
Pulley Ass'y
4-812-134-00 Ⓐ Rivet, plastic 3.5 mm dia.
Holder, switch
Holder C, circuit board
Flywheel Ass'y
⚠ 1-446-164-00 Ⓚ Transformer, power (PT601)
4-812-139-00 Ⓐ TD 3.5 x 3.5
4-812-134-00 Ⓐ Rivet, plastic 3.5 mm dia.
Holder A, circuit board
Printed Circuit Board
Pulley Ass'y
Supplied with Switch
Sub-chassis
1-518-298-00 Ⓘ Lamp, including reflector (PL601~603)
Bracket A, pulley
Pulley Ass'y
Bracket (R), illuminator
Supplied with Flywheel
Blind F
Side Plate (L), chassis
Pulley Ass'y
4-812-139-00 Ⓐ TD 3.5 x 3.5
1-518-297-00 Ⓒ Lamp
Bracket C, pulley
Bracket (L), illuminator
⚠ 1-552-206-11 Ⓒ Switch, pushbutton, POWER (S601)
4-838-919-00 Ⓑ Cover, lamp
LED
BV 3 x 4
B 3 x 4
Plate, pointer guide
4-853-223-00 Ⓑ Screw
4-892-109-00 Ⓒ Back Plate
4-853-214-00 Ⓑ Indicator B, stereo
4-853-223-00 Ⓑ Screw
4-853-919-00 Ⓐ Cushion
X-4853-904-0 Ⓑ Pointer Ass'y
4-892-121-00 Ⓓ Dial Scale

Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recessed) type unless otherwise noted. (–) = slotted head
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 6
ELECTRICAL PARTS LIST

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

SEMICONDUCTORS

Transistors

Ref. No.	*Part No.*	*Description*
⇒ Q101	8-727-312-00	Ⓒ 2SK42-2
Q102	8-729-803-04	Ⓑ 2SC930
Q103	8-729-803-04	Ⓑ 2SC930
Q201	8-729-803-04	Ⓑ 2SC930
⇒ Q401,451	8-729-663-47	Ⓑ 2SC1364
⇒ Q501	8-729-217-33	Ⓒ 2SC1173

ICs

Ref. No.	*Part No.*	*Description*
IC201	8-751-680-01	Ⓘ CX168
IC301	8-751-780-00	Ⓖ CX178

Diodes

Ref. No.	*Part No.*	*Description*
⇒ D101,201	8-719-815-55	Ⓐ 1S1555
⇒ D501,502	⚠8-719-200-02	Ⓑ 10E2
⇒ D503	8-719-931-13	Ⓑ EQB01-13
⇒ D601	8-719-801-09	Ⓑ TLR-109

COILS

Ref. No.	*Part No.*	*Description*
L101	1-459-233-00	Ⓑ FM RF
L102	1-405-599-00	Ⓑ FM RF
L201	1-407-169-XX	Ⓐ 100μH, microinductor
L202	1-401-709-00	Ⓒ LW ANT
L203	1-407-741-00	Ⓐ 18μH, microinductor
L601	1-401-748-00	Ⓖ Ferrite-rod Antenna

TRANSFORMERS

Ref. No.	*Part No.*	*Description*
PT601	⚠1-446-164-00	Ⓚ Power
T201	1-405-817-00	Ⓑ MW OSC

Ref. No.	*Part No.*	*Description*
IFT101	1-403-914-00	Ⓑ FM IFT
IFT201	1-404-011-00	Ⓒ Discriminator
CFT201	1-404-087-00	Ⓒ AM IF

CAPACITORS

All capacitors are in μF and ceramic unless otherwise noted.
50WV or less are not indicated except for electrolytics and tantalum.
pF: μμF, elect: electrolytic

Ref. No.	*Part No.*	*Description*			
C101	1-102-951-11	Ⓐ	15p		
C102	1-101-924-11	Ⓐ	0.022		
C103	1-102-948-11	Ⓐ	11p		
C104	1-102-941-11	Ⓐ	4p		
C105	1-102-949-11	Ⓐ	12p		
C106	1-101-918-11	Ⓐ	0.001		
C108	1-101-924-11	Ⓐ	0.022		
C109	1-102-683-11	Ⓐ	4p		
C110,111	1-101-924-11	Ⓐ	0.022		
C112	1-101-971-11	Ⓐ	15p		
C113	1-101-970-11	Ⓐ	5p		
C114	1-102-643-11	Ⓐ	27p		
C115	1-102-951-11	Ⓐ	15p		
C116	1-101-924-11	Ⓐ	0.022		
C201,202	1-101-924-11	Ⓐ	0.022		
C203,204	1-101-925-11	Ⓐ	0.047		
C205	1-121-450-11	Ⓐ	2.2	50V	elect
C206	1-101-924-11	Ⓐ	0.022		
C207	1-121-413-11	Ⓐ	100	6.3V	elect
C208	1-101-925-11	Ⓐ	0.047		
C209	1-121-398-11	Ⓐ	10	25V	elect
C210	1-121-726-11	Ⓐ	0.47	50V	elect
C211	1-121-413-11	Ⓐ	100	6.3V	elect
C212	1-121-450-11	Ⓐ	2.2	50V	elect
C213,214	1-101-924-11	Ⓐ	0.022		
C215	1-101-340-11	Ⓐ	120p		
C216	1-121-396-11	Ⓐ	4.7	50V	elect

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	*Part No.*		*Description*		
C217	1-121-479-11	Ⓐ	22	16V	elect
C219	1-108-239-12	Ⓐ	0.01		mylar
C220	1-102-941-11	Ⓐ	4p		
C221	1-104-065-11	Ⓐ	330p		styrol
C222	1-101-885-11	Ⓐ	56p		
C223	1-104-056-11	Ⓐ	130p		styrol
C224	1-121-396-11	Ⓐ	4.7	50V	elect
C225	1-101-924-11	Ⓐ	0.022		
C226	1-121-352-11	Ⓐ	47	10V	elect
C227	1-121-413-11	Ⓐ	100	6.3V	elect
C228	1-101-924-11	Ⓐ	0.022		
C229	1-121-396-11	Ⓐ	4.7	50V	elect
C230	1-108-239-12	Ⓐ	0.01		mylar
C231	1-102-975-11	Ⓐ	100p		
C232	1-101-886-11	Ⓐ	62p		
C233	1-108-355-12	Ⓐ	0.0056		mylar
C234	1-108-242-12	Ⓐ	0.022		mylar
C235	1-131-451-11	Ⓐ	0.1	16V	tantalum
C236	1-101-924-11	Ⓐ	0.022		
C237	1-121-726-11	Ⓐ	0.47	50V	elect
C301	1-121-726-11	Ⓐ	0.47	50V	elect
C302	1-108-356-12	Ⓐ	0.0082		mylar
C303	1-121-479-11	Ⓐ	22	16V	elect
C304	1-121-396-11	Ⓐ	4.7	50V	elect
C305	1-121-726-11	Ⓐ	0.47	50V	elect
C306	1-108-228-12	Ⓐ	0.0015		mylar
C307	1-131-453-11	Ⓐ	0.22	16V	tantalum
C308	1-131-239-11	Ⓑ	6.8	35V	tantalum
C309	1-121-393-11	Ⓐ	3.3	50V	elect
C351	1-121-726-11	Ⓐ	0.47	50V	elect
C352	1-108-356-12	Ⓐ	0.0082		mylar
C401	1-121-726-11	Ⓐ	0.47	50V	elect
C402	1-101-885-11	Ⓐ	56p		
C403	1-121-391-11	Ⓐ	1	50V	elect
C404	1-121-421-11	Ⓑ	220	16V	elect
C451	1-121-726-11	Ⓐ	0.47	50V	elect
C452	1-101-885-11	Ⓐ	56p		
C453	1-121-391-11	Ⓐ	1	50V	elect
C501,502	⚠1-101-924-11	Ⓐ	0.022		
C503	⚠1-121-657-11	Ⓑ	1000	25V	elect
C504	1-121-421-11	Ⓑ	220	16V	elect
C505	1-101-924-11	Ⓐ	0.022		
CT201	1-141-138-XX	Ⓑ	Trimmer		
CT202	1-141-147-XX	Ⓑ	Trimmer		
CT203	1-141-138-XX	Ⓑ	Trimmer		
CT204	1-141-147-XX	Ⓑ	Trimmer		
CV101–103 CT101–103 CV201,202	1-151-325-00	Ⓘ	Tuning		

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on page 20 for their part numbers.

R502	1-217-151-11	Ⓐ	0.22	2W	wirewound
RV201	1-226-236-00	Ⓐ	10k, adjustable; MUTING LEVEL		
RV301	1-226-235-00	Ⓐ	4.7k, adjustable; VCO		
RV302	1-226-236-00	Ⓐ	10k, adjustable; FM STEREO SEPARATION		

SWITCHES

S501	1-516-972-00	Ⓑ	Pushbutton, MUTING FM/AM
S502	1-552-582-00	Ⓕ	Rotary-slide, FUNCTION
S503	1-552-581-00	Ⓒ	Slide, AM ANT
S601	⚠1-552-206-11	Ⓒ	Pushbutton, POWER

MISCELLANEOUS

CF201–203	1-527-307-XX	Ⓑ	Ceramic Filter
CNJ601	1-507-378-XX	Ⓑ	Jack, 2p
CNJ602	1-536-403-XX	Ⓒ	Terminal, antenna
CNJ603	⚠1-509-546-00	Ⓓ	Socket, 3p AC IN
LPF301,351	1-231-303-00	Ⓒ	Lowpass Filter
ME601	1-520-365-00	Ⓘ	Meter, SIGNAL

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	*Part No.*	*Description*
ME602	1-520-366-00	Ⓘ Meter, TUNING
PL601–603	1-518-297-00	Ⓒ Lamp
PL601–603	1-518-298-00	Ⓙ Lamp, including reflector
VS601	⚠1-508-897-00	Ⓒ Voltage Selector

ACCESSORIES AND PACKING MATERIALS

Part No.	*Description*
1-501-161-00	Ⓒ Feeder Antenna
1-534-049-31	Ⓔ Cord, connection; RK-74H
2-057-975-01	Ⓐ Bag, accessories
3-701-020-00	Ⓐ Bag, instruction manual
3-770-522-11	Ⓒ Instruction Manual
4-891-037-00	Ⓑ Bag, plastic; set
4-892-106-00	Ⓑ Cushion
4-892-107-00	Ⓔ Carton

1/4 WATT CARBON RESISTORS Ⓐ

Note: Circled letter Ⓐ is applicable to European models only.

Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*
1.0	1-244-601-11	10	1-244-625-11	100	1-244-649-11	1.0k	1-244-673-11	10k	1-244-697-11	100k	1-244-721-11	1.0M	1-244-745-11
1.1	1-244-602-11	11	1-244-626-11	110	1-244-650-11	1.1k	1-244-674-11	11k	1-244-698-11	110k	1-244-722-11	1.1M	1-244-746-11
1.2	1-244-603-11	12	1-244-627-11	120	1-244-651-11	1.2k	1-244-675-11	12k	1-244-699-11	120k	1-244-723-11	1.2M	1-244-747-11
1.3	1-244-604-11	13	1-244-628-11	130	1-244-652-11	1.3k	1-244-676-11	13k	1-244-700-11	130k	1-244-724-11	1.3M	1-244-748-11
1.5	1-244-605-11	15	1-244-629-11	150	1-244-653-11	1.5k	1-244-677-11	15k	1-244-701-11	150k	1-244-725-11	1.5M	1-244-749-11
1.6	1-244-606-11	16	1-244-630-11	160	1-244-654-11	1.6k	1-244-678-11	16k	1-244-702-11	160k	1-244-726-11	1.6M	1-244-750-11
1.8	1-244-607-11	18	1-244-631-11	180	1-244-655-11	1.8k	1-244-679-11	18k	1-244-703-11	180k	1-244-737-11	1.8M	1-244-751-11
2.0	1-244-608-11	20	1-244-632-11	200	1-244-656-11	2.0k	1-244-680-11	20k	1-244-704-11	200k	1-244-728-11	2.0M	1-244-752-11
2.2	1-244-609-11	22	1-244-633-11	220	1-244-657-11	2.2k	1-244-681-11	22k	1-244-705-11	220k	1-244-729-11	2.2M	1-244-753-11
2.4	1-244-610-11	24	1-244-634-11	240	1-244-658-11	2.4k	1-244-682-11	24k	1-244-706-11	240k	1-244-730-11	2.4M	1-244-754-11
2.7	1-244-611-11	27	1-244-635-11	270	1-244-659-11	2.7k	1-244-683-11	27k	1-244-707-11	270k	1-244-731-11	2.7M	1-244-755-11
3.0	1-244-612-11	30	1-244-636-11	300	1-244-660-11	3.0k	1-244-684-11	30k	1-244-708-11	300k	1-244-732-11	3.0M	1-244-756-11
3.3	1-244-613-11	33	1-244-637-11	330	1-244-661-11	3.3k	1-244-685-11	33k	1-244-709-11	330k	1-244-733-11	3.3M	1-244-757-11
3.6	1-244-614-11	36	1-244-638-11	360	1-244-662-11	3.6k	1-244-686-11	36k	1-244-710-11	360k	1-244-734-11	3.6M	1-244-758-11
3.9	1-244-615-11	39	1-244-639-11	390	1-244-663-11	3.9k	1-244-687-11	39k	1-244-711-11	390k	1-244-735-11	3.9M	1-244-759-11
4.3	1-244-616-11	43	1-244-640-11	430	1-244-664-11	4.3k	1-244-688-11	43k	1-244-712-11	430k	1-244-736-11	4.3M	1-244-760-11
4.7	1-244-617-11	47	1-244-641-11	470	1-244-665-11	4.7k	1-244-689-11	47k	1-244-713-11	470k	1-244-737-11	4.7M	1-244-761-11
5.1	1-244-618-11	51	1-244-642-11	510	1-244-666-11	5.1k	1-244-690-11	51k	1-244-714-11	510k	1-244-738-11	5.1M	1-244-762-11
5.6	1-244-619-11	56	1-244-643-11	560	1-244-667-11	5.6k	1-244-691-11	56k	1-244-715-11	560k	1-244-739-11		
6.2	1-244-620-11	62	1-244-644 11	620	1-244-668-11	6.2k	1-244-692-11	62k	1-244-716-11	620k	1-244-740-11		
6.8	1-244-621-11	68	1-244-645-11	680	1-244-669-11	6.8k	1-244-693-11	68k	1-244-717-11	680k	1-244-741-11		
7.5	1-244-622-11	75	1-244-646-11	750	1-244-670-11	7.5k	1-244-694-11	75k	1-244-718-11	750k	1-244-742-11		
8.2	1-244-623-11	82	1-244-647-11	820	1-244-671-11	8.2k	1-244-695-11	82k	1-244-719-11	820k	1-244-743-11		
9.1	1-244-624-11	91	1-244-648-11	910	1-244-672-11	9.1k	1-244-696-11	91k	1-244-720-11	910k	1-244-744-11		

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FM STEREO/FM-AM TUNER

ST-A3L

UK Mode
AEP Mode

No. 1
July, 1978

CORRECTION

Subject: FM FREQUENCY COVERAGE AND TRACKING ADJUSTMENT

Page 8

FM TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L101, 102	87.2 MHz (87.5 MHz)
CT101	108.4 MHz (108 MHz)
CT102	

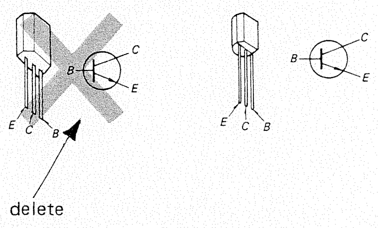
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L104	87.2 MHz (87.5 MHz)
CT103	108.4 MHz (108 MHz)

( ): in West Germany

Subject: REPLACEMENT SEMICONDUCTORS

Page 10

Q401, 451: 2SC1364 (2SC945)



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